

## ABSTRACT

Certain embodiments of the invention may be found in a method and system for antenna selection diversity with prediction. An antenna diversity system may use information that it has stored on the antenna selection process in previous frames to predict the starting receiving antenna and the starting transmission antenna for the next frame. The prediction may be based on which antennas were selected in previous frames or may be based metrics associated with performance of the antennas. Prediction may be based on a majority polling scheme of previously selected antennas in a determined number of previous frames. Prediction may also be based on a weighted sum of at least one selection metric for all antennas in a determined number of previous frames. Antenna prediction provides a significant performance improvement by reducing the processing and operational overhead in cases where a transmit or a receive antenna dominates.